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FOREST SURVEY RELEASE NO. 13 A MAY 1938 PROGRESS REPORT

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no. 13

FOREST STATISTICS
LEWIS COUNTY, IDAHO

FROM THE INVENTORY PHASE OF THE FOREST SURVEY

U. S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

NORTHERN ROCKY MOUNTAIN
FOREST AND RANGE EXPERIMENT STATION

STEPHEN N. WYCKOFF DIRECTOR
MISSOULA MONTANA

BY FOREST SURVEY STAFF M. BRADNER REGIONAL DIRECTOR

FOREST STATISTICS FOR LEWIS COUNTY, IDAHO

From the Inventory Phase of the Forest Survey

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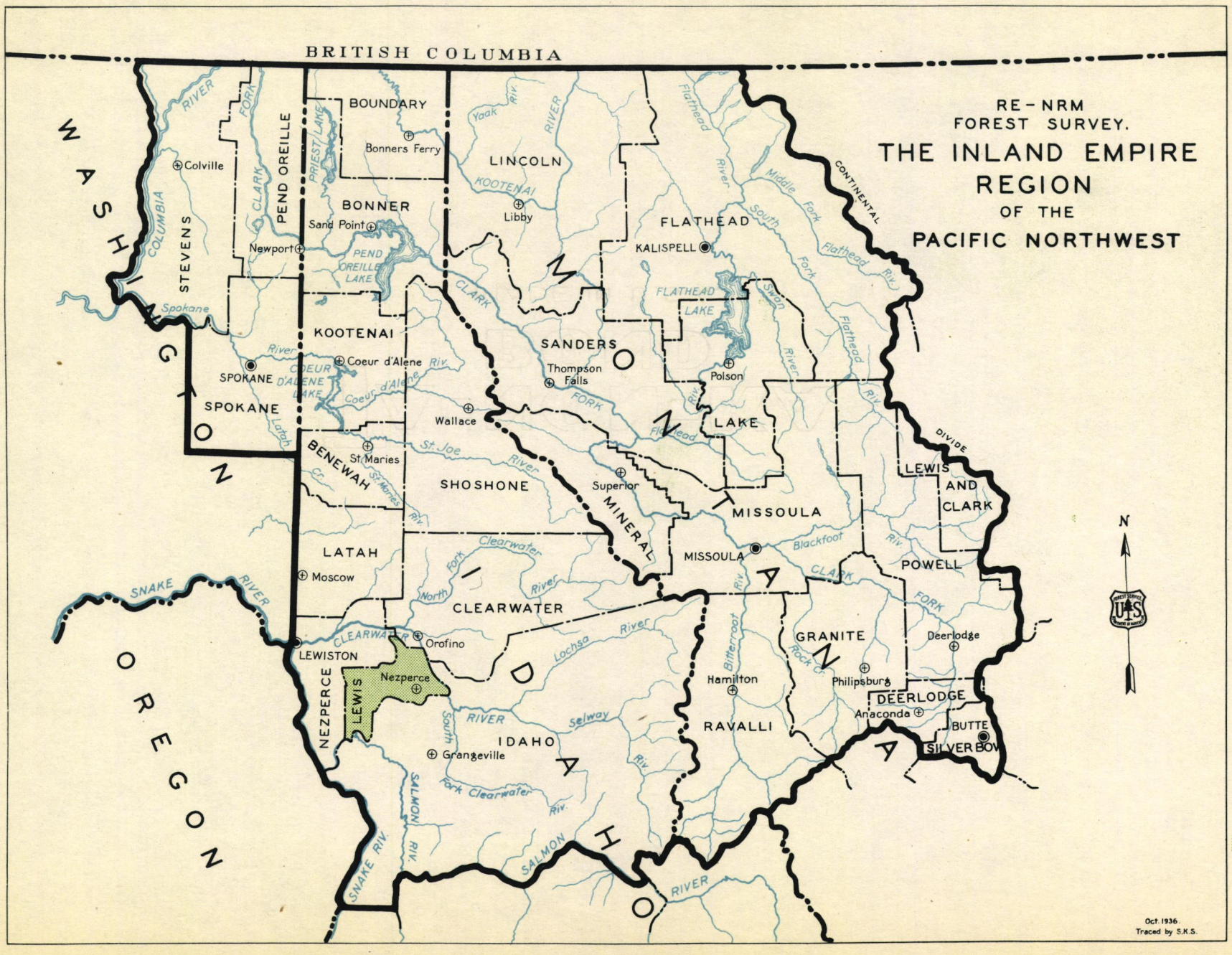
BRITISH COLUMBIA
WASHINGTON
OREGON
IDAHO
MONTANA
RE-NRM
FOREST SURVEY.
THE INLAND EMPIRE
REGION
OF THE
PACIFIC NORTHWEST
BOUNDARY
Bonners Ferry
BONNER
Sand Point
Newport
PEND OREILLE
STEVENS
Colville
LINCOLN
Libby
KOOTENAI
Coeur d'Alene
SPOKANE
SHOSHONE
Wallace
BENEWAH
St. Maries
LATAH
Moscow
CLEARWATER
Orofino
LEWISTON
NEZPERCE
LEWIS
Nezperce
Grangeville
IDAHO
SANDERS
Thompson Falls
FLATHEAD
KALISPELL
Polson
LAKE
MINERAL
Superior
MISSOULA
Missoula
LEWIS AND CLARK
POWELL
GRANITE
Philipsburg
Deerlodge
DEERLODGE
Anaconda
BUTTE
SILVER BOW
RAVALLI
Hamilton
DIVIDE
CONTINENTAL
Columbia River
Spokane River
Coeur d'Alene Lake
Coeur d'Alene River
St. Joe River
St. Maries River
Clearwater River
North Fork Clearwater River
South Fork Clearwater River
Lochsa River
Selway River
Salmon River
Snake River
Clark Fork
Priest Lake
Pend Oreille Lake
Flathead Lake
Flathead River
Middle Fork Flathead River
South Fork Flathead River
Swan River
Yaak River
Kootenai River
Blackfoot River
Bitterroot River
Rock Cr.
Latah Cr.
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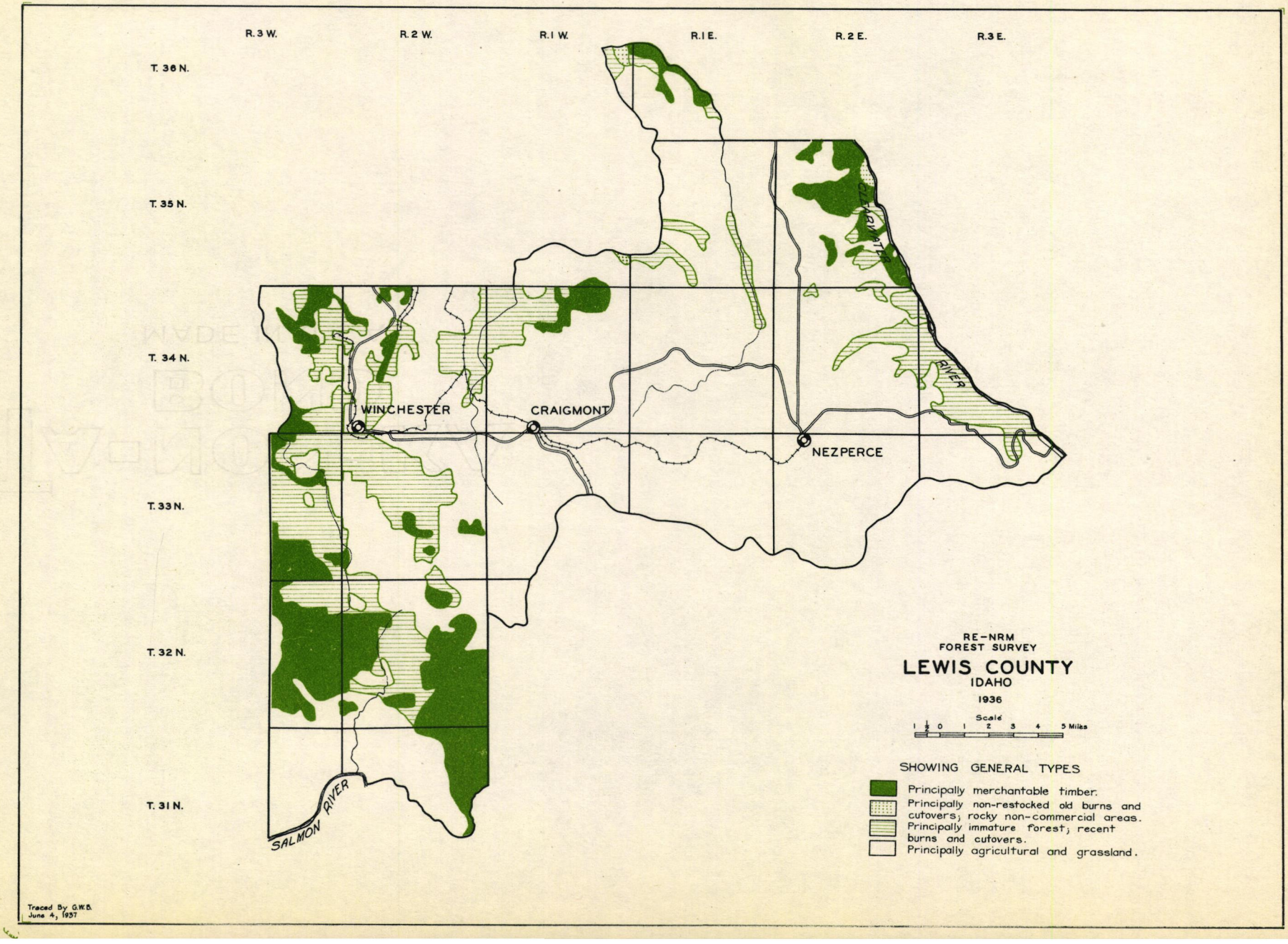
Oct. 1936
Traced by S.K.S.


R. 3 W.
R. 2 W.
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T. 36 N.
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T. 34 N.
T. 33 N.
T. 32 N.
T. 31 N.
CLEARWATER RIVER
WINCHESTER
CRAIGMONT
NEZPERCE
SALMON RIVER
RE-NRM
FOREST SURVEY
LEWIS COUNTY
IDAHO
1936
Scale
1 ½ 0 1 2 3 4 5 Miles
SHOWING GENERAL TYPES
Principally merchantable timber.
Principally non-restocked old burns and cutovers; rocky non-commercial areas.
Principally immature forest; recent burns and cutovers.
Principally agricultural and grassland.
Traced By G.W.B.
June 4, 1937

RE-NRM
Forest Survey

FOREST STATISTICS FOR LEWIS COUNTY, IDAHO

Foreword

The forests of the Inland Empire[1/] represent a vast renewable wealth, the many values of which have long been proclaimed. Utilization of this resource to obtain the maximum of contribution to the community, state, and nation is one of the outstanding technical and economic problems of the region. The need for preventing waste from misuse on one hand, and waste from nonuse on the other, has given rise to a more or less united action in the direction of economic forest planning, and the Forest Survey has been established to collect and present the basic facts needed in such planning.

The several phases of this survey constitute an enormous assignment requiring considerable time for accomplishment. To meet the present needs for information, pending the completion of the task, a series of county reports, of which this is the eleventh, are being prepared presenting such data as are now available.

The Growth of Lewis County

Lewis County, Idaho, is primarily a farm district, the lumber industry occupying a secondary position. More than half of this county, which lies mainly upon a high

1/ The three northeastern Washington counties, Idaho north of the Salmon River, and Montana west of the Continental Divide.

plateau overlooking the Salmon and Clearwater Rivers, has been cultivated at some time or other (figure 1), and most of the remaining acreage has been more or less grazed by livestock. The agricultural opportunities afforded in this fertile locality were the principal attractions to the original settlers and today agriculture is the dominant factor in the welfare of the county.

This area was late in capitalizing on its agricultural possibilities. For several decades after the general influx into northern Idaho began, the more desirable part of what is now Lewis and Nez Perce Counties was withheld from private acquisition in the Nez Perce Indian Reservation. In 1890 most of the valuable prairie land farther north had been subdivided into farms. The census of that year records that there were 9,173 persons residing in Latah County, as against 2,847 in Nez Perce County which then included the present Lewis County. The Indian Reservation was opened to entry in 1895 and the rush that followed can be imagined from the fact that there were 13,748 persons in Nez Perce County by 1900. These few years witnessed the bulk of the agricultural expansion in this area as the subsequent growth in population has been principally in the city of Lewiston which has become the major trade center of northern Idaho. This is indicated in census statistics. In 1900 the population outside of Lewiston in the present Nez Perce and Lewis Counties was 11,323. In 1930, although

GENERAL CLASSIFICATION OF LAND
LEWIS COUNTY, IDAHO

Figure 1.

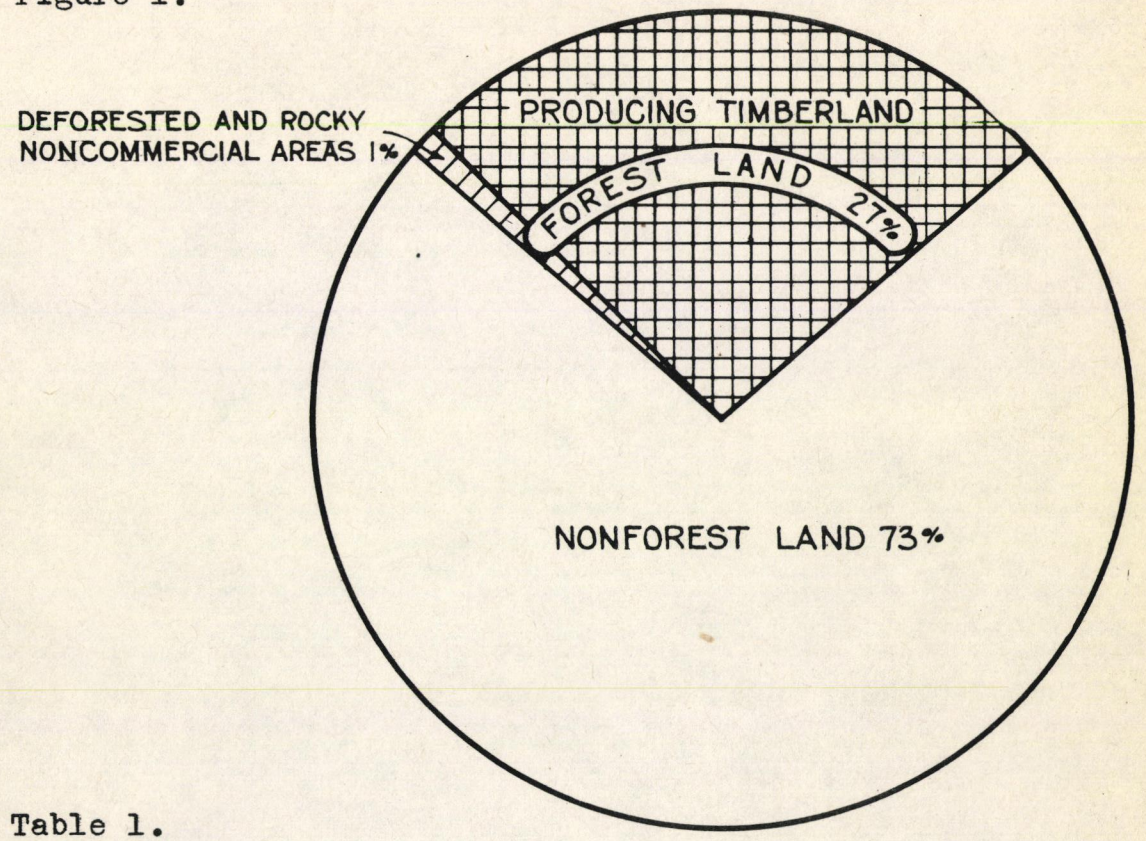


Table 1.

	Area in Acres
NONFOREST LAND	
Townsites	548
Cultivated and Stump Pasture	169,520
Grassland	51,704
Barren	323
Total	222,095
FOREST LAND	
Timberland	
Producing	79,465
Deforested	914
Total	80,379
Rocky Noncommercial	1,722
Total Forest Land	82,101
GROSS LAND AREA	304,196

the total population had increased to 22,829 persons, only 13,786 resided outside of Lewiston.

Established as a separate governmental unit in 1911, Lewis is the smallest of the ten counties in the Idaho Panhandle. In 1920 there were 5,851 persons in this section. The 1930 census indicates a later decline to 5,238 in that year, or about 11 persons per square mile. The populations of the principal towns in this county in 1930 were: Nez-perce (county seat) 444, Winchester 665, Craigmont 496, Kamiah 487, and Reubens 191.

The single outside rail connection is afforded by the Camas Prairie Railroad, built early in the century (see county map).

History of Forest Exploitation

In the scramble for the choice locations when the Reservation was opened in 1895, the prairie lands were naturally the most sought after. It was not long, however, before there was a considerable demand for the forest products needed in building up the homes and farms of the newly established settlers. Sawmills were soon built to supply the demand for lumber, but just which was the first mill to be brought into this new country is not known.

The county map in the front of this book shows the general distribution of the forest stands at the beginning of 1936. The change by cutting and fire has been small enough that the picture is essentially the same for January 1, 1938.

Between 1898 and 1905, however, many small lumber mills sprang up throughout the timbered sections.

In 1909 construction was begun on the mill of the Craig Mountain Lumber Company at Winchester. The one and only large lumber concern in this county, its first operation in 1910 marked the beginning of a new chapter in the local lumber history. Most of the small sawmills having served their purpose ceased operation. In 1925 and also 1936, there were but three such mills running in this county.

In 28 years (1910-1937 inclusive) the Craig Mountain Lumber Company sawed 603 million board feet of timber (lumber tally) at a rate of about 21.5 million feet annually. From about 10 million board feet in 1910, the production climbed to 45 million in 1923. This was the peak year for the concern, followed by a six-year period during which the output varied between 30 and 40 million board feet annually. Hit by the first wave of the depression, this mill's cut slumped to 14 million board feet in 1930. For the next four years the plant lay idle, during which time the less than one-third million feet produced annually by the two or three small sawmills represented the entire lumber production of this county. The Craig Mountain mill reopened in 1935 and the largest cut since then was 19 million board feet last year (1937).

The logs sawed by the mills of this county have come largely from local stands, about 43,000 acres having

been logged by the Craig Mountain Lumber Company. Between 1925 and 1936, inclusive, the average annual log production for all mills was 16 million board feet log scale (table 9). Eighty-eight percent of this was ponderosa pine, the principal tree species.

According to preliminary figures compiled in a farm requirements study by the Forest Survey, the average farm in northern Idaho uses about 1,700 board feet of lumber yearly for construction of buildings and farm maintenance. On well developed farms the consumption is less than this. In Lewis County, as in most of northern Idaho, the local lumber requirements are far exceeded by the fuelwood needs. It is estimated that about 17,700 cords of fuelwood, equivalent to almost 9 million board feet, are consumed each year in this county (table 9).

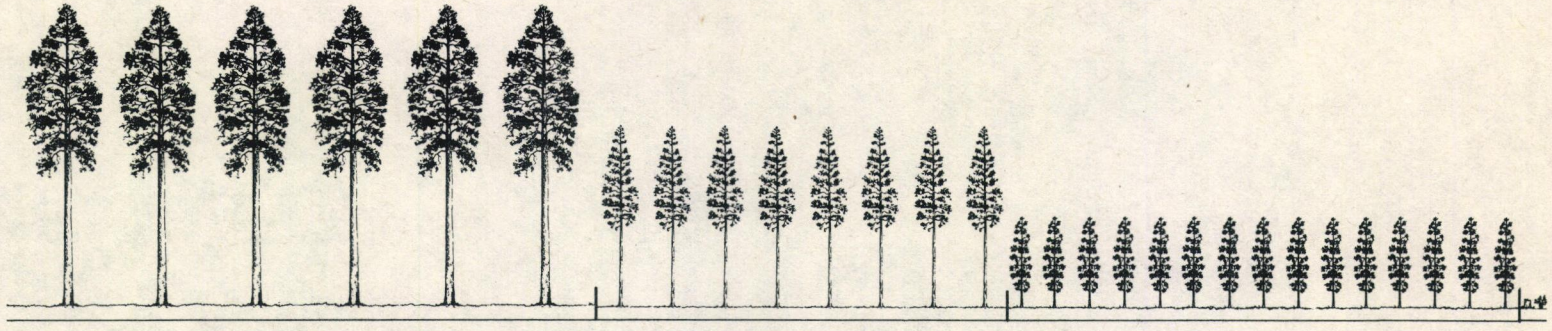
Forest Stands

In 1895 the forest area in this locality was larger than it is now, owing to the fact that forest lands more desirable and valuable for farming than for growing trees have been cleared. This transition is still going on. Waving fields of grain may yet be found beneath open stands of virgin pine.

The entire acreage of this, the smallest of the northern Idaho counties, is 304,196 acres. Only 82,101 acres (27 percent) are classified as forest land (figure 1), the general location of which is shown on the county map.

Fig. 2

CHARACTER OF TIMBERLAND COVER IN ZONES ONE AND TWO — LEWIS COUNTY, IDAHO
79,775 ACRES



SAWLOG STANDS
31,110 Acres

POLE STANDS*
21,028 Acres

SEEDLING AND SAPLING STANDS**
26,723 Acres

DEFORESTED
914 Acres

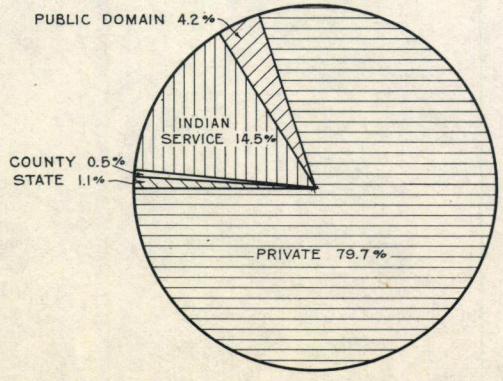
*Including all Immature Cottonwood Stands.

**Including Recent Burns and Cutovers.

Fig. 3

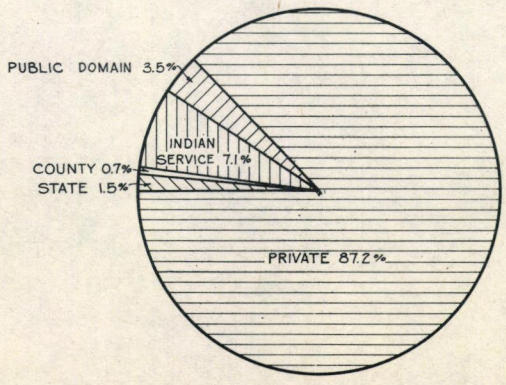
OWNERSHIP OF FOREST LAND AND TIMBER — LEWIS COUNTY, IDAHO

ALL FOREST LAND



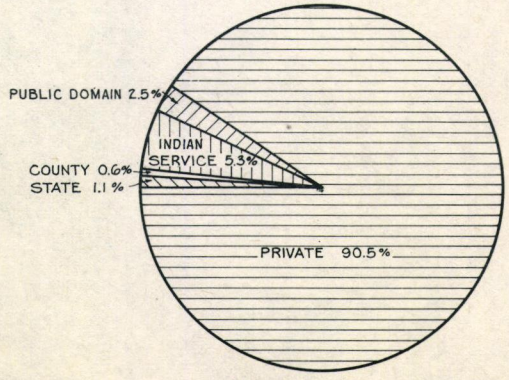
82,101 Acres

SAWLOG STANDS - ZONES ONE AND TWO



31,110 Acres

VOLUME IN SAWLOG STANDS - ZONES ONE AND TWO



219,142,000 Board Feet

FOR DEFINITION OF ZONES-SEE GLOSSARY

Of this total forest area, 1,722 acres are classed as noncommercially rocky and 604 acres, otherwise satisfactory, are economically inaccessible (zone 3). Thus the largest area which may be considered in any calculations of commercial timber production is 79,775 acres. The stand composition of this area is shown in figure 3. On a percentage basis the stands are distributed as follows:

Sawlog stands	39%
Seedling & sapling	26%
Pole stands	26%
Recent burns	1%
Recent cutovers	7%
Deforested	1%
	100%

After the virgin sawtimber has been removed, the production of lumber and other timber products will become dependent upon a succession of maturing young stands and the evenness of production will be regulated by the extent to which an equal volume of timber becomes available for cutting each year. Ponderosa pine stands are typically "all-age". On merchantable areas unsuppressed trees are to be found ranging from seedlings to economically mature trees of the desired size. This type of forest is well suited to a manner of management in which the area is logged more than once in a rotation (the period required to grow trees of the desired merchantable size). The time elapsing between cuts is dependent upon the age and volume of the timber left following each logging operation.

Due to a lack of information concerning the desirable degree of partial cutting in Lewis County, the stands are plotted in figure 4 on the assumption that each area will be logged once in a rotation period. This type of calculation is conservative in that the present stand requirements are lower than for partial cutting methods. Even on this basis the forests of Lewis County have been depleted to the point of an undesirable age deficiency, according to present standards (figure 4). However, considering this timber, as should be done, together with the forests of Nez Perce County, the deficiency is less marked.

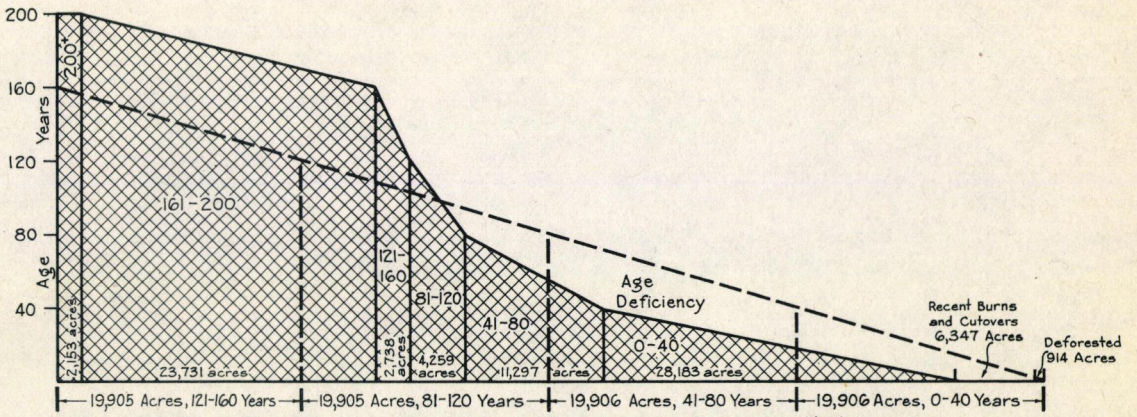
Lying on the margin of the northern Idaho forests and against a prairie area, the stands in this county are principally ponderosa pine. Eighty-five percent of the producing timberland is so classified (table 2).

Timber Volumes

In 43 years several times as much timber has been logged as now remains in merchantable stands. An estimate of the area of mature virgin timber at the beginning of this period is difficult since there is no record of the land turned to farming, but it is apparent that a high proportion of the forest lands in 1895 contained merchantable size timber. The original stands were generally distributed in the two western tiers of townships and on the steep slopes which drop off into the Clearwater River.

Fig. 4

ACTUAL AND DESIRABLE DISTRIBUTION OF AGE CLASSES IN TIMBERLANDS ZONES ONE AND TWO—LEWIS COUNTY, IDAHO 79,622 ACRES*



Desirable Distribution of Age Classes for Sustained Yield Shown by Dotted Lines.

* Cottonwood not Included.

Fig. 5

VOLUME IN TIMBER STANDS BY SPECIES LEWIS COUNTY, IDAHO

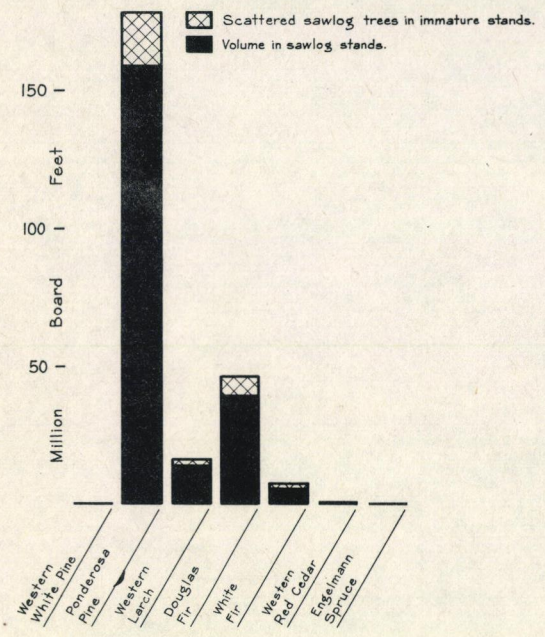
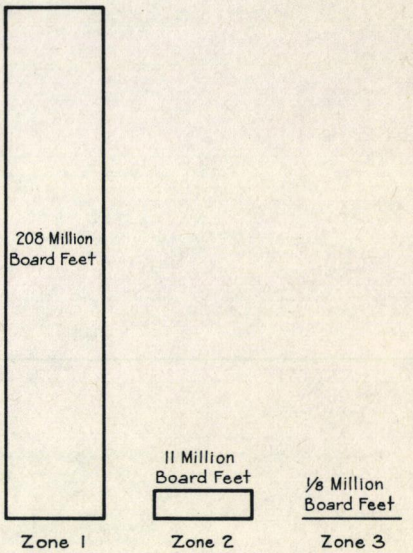


Fig. 6

VOLUME IN SAWLOG STANDS BY ZONES LEWIS COUNTY, IDAHO



FOR DEFINITION OF ZONES SEE GLOSSARY

The Forest Survey reveals a present sawlog area of approximately 31 thousand acres. The largest body of uncut timber lies in the southwest corner of the county outside the arc of past operations radiating from Winchester. A smaller body lies in the northeastern corner of the county on "breaks" of the Clearwater (see map).

With an average volume of 7,000 board feet per acre the 31 thousand acres of sawlog stands contain an aggregate of approximately 219 million board feet of timber. Seventy-three percent is ponderosa pine and 18 percent Douglas fir (figure 5). In addition to this volume, there are 31 million board feet in scattered sawlog trees in younger stands and on burned areas, etc.

The total net board foot volume figures compiled by the Forest Survey may be considerably higher than previous estimates. This is due in part to the intensiveness of the present survey and to a certain extent to the broader standards of merchantability followed. In the case of some of the secondary species, smaller trees than are actually utilized at the present time are included in this estimate.

Forest Ownership

The public's direct stake in the forest lands of Lewis County is small. There is no National Forest area and very little State, county or public domain forest lands. Seventy-nine and seven-tenths percent of the total forest area and 90.5 percent of the accessible sawlog volume are

privately owned (figure 3). Still retaining 11,932 acres under its direct management, the Indian Service represents the only other important ownership group. Fourteen and five-tenths percent of the forest area and 5.3 percent of the accessible sawtimber are so owned.

Dependent Population

As a factor in the economic structure of the county, the lumber industry has been considerably less important during recent years than in the 1920's. Approximately 500 men were employed at the peak of activity by the Craig Mountain Lumber Company. At the end of 1929, according to the 1930 census, 310 persons received their principal employment from forest industry, and in 1937 it is estimated that the operations were sufficient to give full time employment to no more than 200 men.

In 1930 there were 892 persons reported as gainfully employed on the 609 farms in Lewis County. The number is now larger. Between 1930 and 1935, 55 new farms were established. On a proportional basis there were probably about 970 persons employed on farms in the latter year.

The industrial make-up of Lewis County is the least complex in northern Idaho. The rail facilities and the trade enterprise being of a local nature, the support of almost the entire population can be traced, directly and indirectly, either to agriculture or to the lumber industry. Using the previously quoted 1930 employment figures as a

basis, it may be said, within reasonable limits of error, that agriculture supported 75 percent of the population and lumbering the other 25 percent in that year. The trend, as mentioned above, has been toward a more complete dependence upon agriculture.

Conclusion

The past four decades in Lewis County have been in the main a period of agricultural expansion. Forest lands have been turned to a higher form of use as trees have given way to farm crops. This transition has reached the point where the land which it is desirable to clear for agriculture appears to be limited. The exact acreage of such potential farm land is yet to be determined. It is apparent, however, that much of the area now in forest should remain so due to soil factors and topography.[2/] With no present or future value as cleared land, it is important that this area be continued as an economic asset to the county by maintaining it in its most productive forest state.

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The figures in this report are preliminary and subject to correction in future releases.

2/ "Soil Survey of Nez Perce and Lewis Counties, Idaho", Bureau of Soils, U.S.D.A., 1917.

Designed to meet the many and varied needs for information, a wealth of data is at hand for each county. In this publication, it has been necessary to sacrifice some of the detail to brevity, and consequently the information herein is generalized into the more important classifications. Subsequent reports for the economic unit, of which Lewis County is a part, will cover the material in more detail, going much farther than this preliminary analysis in making interpretations based on various economic considerations.

To facilitate the most intelligent use of the tables in this publication, the methods followed and the types, terms and classifications used in collecting and presenting these data are described in a supplementary report.3/ Brief definitions of the more important of these are contained in the glossary.

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. . .

3/ Forest Survey Release No. 3. The Inventory Phase of the Forest Survey for the Northern Rocky Mountain Region--A Definition of the Procedure, Terms, and Classifications.

INVENTORY PHASE--LEWIS COUNTY, IDAHO

P. D. Kemp and G. M. DeJarnette, In Charge

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Report writing--S. B. Hutchison

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RE-NFM
Forest Survey

Table 2. - CLASSIFICATION OF FOREST LAND TYPES ACCORDING TO OWNERSHIP, ZONE AND SIZE CLASS

LEWIS COUNTY, IDAHO
Area in acres

(Continued on next page)

Forest type	Zone	Private					State 1/				County				
		Sawlog	Pole	Seedling and sapling	Recent burns & cutovers	Total	Sawlog	Pole	Seedling and sapling	Total	Sawlog	Pole	Seedling and sapling	Recent burns & cutovers	Total
Ponderosa pine-pure	1	10,513	6,760	6,662	2,364	26,299	133			133		31			31
	3		6			6									
	Total	10,513	6,766	6,662	2,364	26,305	133			133		31			31
Ponderosa pine-mixed	1	13,918	2,479	5,959	3,189	25,545	206		83	289	39	4	47		90
	2	1,692	495		193	2,380	123			123	190			70	260
	3		313			313									
	Total	15,610	3,287	5,959	3,382	28,238	329		83	412	229	4	47	70	350
Ponderosa pine-total	1	24,431	9,239	12,621	5,553	51,844	339		83	422	39	35	47		121
	2	1,692	495		193	2,380	123			123	190			70	260
	3		319			319									
	Total	26,123	10,053	12,621	5,746	54,543	462		83	545	229	35	47	70	381
Larch-Douglas fir	1	613	1,321	421	71	2,417									
	Total	613	1,321	421	71	2,417									
Douglas fir	1	372	1,914	881	52	3,219		5	27	32			48		48
	2	20	997	1,400	53	2,470			3	3					
	3		108		152	260									
	Total	392	3,019	2,281	257	5,949		5	30	35			48		48
Lodgepole pine	1		332	125	107	564									
	Total		332	125	107	564									
Cottonwood 2/	1		111			111		26		26					
	Total		111			111		26		26					
Total producing timberland	1	25,416	12,917	14,039	5,783	58,155	339	31	110	480	39	35	95		169
	2	1,712	1,492	1,400	246	4,850	123		3	126	190			70	260
	3		427		152	579									
	Total	27,128	14,836	15,439	6,181	63,584	462	31	113	606	229	35	95	70	429
Nonrestocked old burns and cutovers	1					638				55					
	2														
	3														
	Total					638				55					
Total timberland	1					58,793				535					169
	2					4,850				126					260
	3					579									
	Total					64,222				661					429
Rocky Noncommercial areas	1					401				88					2
	2					342				35					
	3					423				134					
	Total					1,166				257					2
GROSS FOREST AREA	1					59,194				623					171
	2					5,192				161					260
	3					1,002				134					
	Total					65,388				918					431

1/ Available for conversion.
2/ All immature cottonwood stands are grouped in one class.

Data as of January 1, 1938

RE-NRM
Forest Survey

Table 2.- CLASSIFICATION OF FOREST LAND TYPES ACCORDING TO OWNERSHIP, ZONE AND SIZE CLASS

LEWIS COUNTY, IDAHO

Area in acres

(continued from preceding page)

Forest type	Zone	Indian Service					Public Domain					Total				
		Sawlog	Pole	Seedling and sapling	Recent burns & cutovers	Total	Sawlog	Pole	Seedling and sapling	Recent burns & cutovers	Total	Sawlog	Pole	Seedling and sapling	Recent burns & cutovers	Total
Ponderosa pine-pure	1	1,256	4,127	3,038		8,421	150	276	14		440	12,052	11,194	9,714	2,364	35,324
	3												6			6
	Total	1,256	4,127	3,038		8,421	150	276	14		440	12,052	11,200	9,714	2,364	35,330
Ponderosa pine-mixed	1	793	203	977	182	2,155	367	318	167	9	861	15,323	3,004	7,233	3,380	28,940
	2						450	136		24	610	2,455	631		287	3,373
	3						25				25	25	313			338
	Total	793	203	977	182	2,155	842	454	167	33	1,496	17,803	3,948	7,233	3,667	32,651
Ponderosa pine-total	1	2,049	4,330	4,015	182	10,576	517	594	181	9	1,301	27,375	14,198	16,947	5,744	64,264
	2						450	136		24	610	2,455	631		287	3,373
	3						25				25	25	319			344
	Total	2,049	4,330	4,015	182	10,576	992	730	181	33	1,936	29,855	15,148	16,947	6,031	67,981
Larch-Douglas fir	1	65		8	33	106						678	1,321	420	104	2,523
	Total	65		8	33	106						678	1,321	420	104	2,523
Douglas fir	1	87	1,070			1,157	123	253	246		622	582	3,242	1,202	52	5,078
	2							154	279		433	20	1,151	1,682	53	2,906
	3												108		152	260
	Total	87	1,070			1,157	123	407	525		1,055	602	4,501	2,884	257	8,244
Lodgepole pine	1												332	125	107	564
	Total												332	125	107	564
Cottonwood 2/	1		16			16							153			153
	Total		16			16							153			153
Total producing timberland	1	2,201	5,416	4,023	215	11,855	640	847	427	9	1,923	28,635	19,246	18,694	6,007	72,582
	2						450	290	279	24	1,043	2,475	1,782	1,682	340	6,279
	3						25				25	25	427		152	604
	Total	2,201	5,416	4,023	215	11,855	1,115	1,137	706	33	2,991	31,135	21,455	20,376	6,499	79,465
Nonrestocked old burns and cutovers	1					57					164					914
	2															
	3															
	Total					57					164					914
Total timberland	1					11,912					2,087					73,496
	2										1,043					6,279
	3										25					604
	Total					11,912					3,155					80,379
Rocky noncommercial areas	1					20					123					634
	2										61					438
	3										93					650
	Total					20					277					1,722
GROSS FOREST AREA	1					11,932					2,210					74,130
	2										1,104					6,717
	3										118					1,254
	Total					11,932					3,432					82,101

1/ Available for conversion.
2/ All immature cottonwood stands are grouped in one class.

Data as of January 1, 1938

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Table 3. - TOTAL VOLUME OF SAWTIMBER BY TYPE OF STAND, SPECIES, AND OWNERSHIP
LEWIS COUNTY, IDAHO

Ownership	Volume by species - thousand board feet net log scale (Scribner Dec. C)[1]							
	Western white pine	Ponderosa pine	Western larch	Douglas fir	White fir	Western red cedar	Engelmann spruce	Total
	Sawlog stands (all zones)							
Private	66	144,369	14,339	33,916	4,645	643	286	198,264
State		1,931	30	538				2,499
County		737	7	502	38			1,284
Indian Service		9,024	582	1,964	93			11,663
Public Domain		3,291	38	2,220	8			5,557
Total	66	159,352	14,996	39,140	4,784	643	286	219,267
	Scattered sawlog trees in immature stands[2] (all zones)							
Private		14,516	2,278	6,032	1,436			24,262
State		61		14				75
County		98		23				121
Indian Service		3,817	98	980	149			5,044
Public Domain		1,215	47	564				1,826
Total		19,707	2,423	7,613	1,585			31,328
Grand total	66	179,059	17,419	46,753	6,369	643	286	250,595

1/ Black Cottonwood and cedar poles occur in negligible quantities.
2/ Includes 1,020 M board feet on deforested, recently cut and burned, etc. areas.

Data as of January 1, 1938.

PE-NRM
Forest Survey

Table 4 - VOLUME OF SAWTIMBER IN SAWLOG STANDS BY ZONE, OWNERSHIP AND SPECIES
LEWIS COUNTY, IDAHO

Ownership class	Volume by species - thousand board feet net log scale (Scribner Dec. C)[1]							
	Western white pine	Ponderosa pine	Western larch	Douglas fir	White fir	Western red cedar	Engelmann spruce	Total
				Zone 1				
Private	66	139,875	14,339	30,485	4,645	643	286	190,339
State		1,685	30	353				2,068
County		110	7	84	38			239
Indian Service		9,024	582	1,964	93			11,663
Public Domain		2,115	13	1,310	8			3,446
Total	66	152,809	14,971	34,196	4,784	643	286	207,755
				Zone 2				
Private		4,494		3,431				7,925
State		246		185				431
County		627		418				1,045
Public Domain		1,126		860				1,986
Total		6,493		4,894				11,387
				Zone 3				
Public Domain		50	25	50				125
Total		50	25	50				125
Grand total	66	159,352	14,996	39,140	4,784	643	286	219,267

1/ Black cottonwood and cedar poles occur in negligible quantities

Data as of January 1, 1938

RE-NRM
Forest Survey

Table 5. - VOLUME OF SAWTIMBER IN SAWLOG STANDS BY TYPE, ZONE AND SPECIES

LEWIS COUNTY, IDAHO

Timber type	Volume by species - thousand board feet net log scale (Scribner Dec. C) 1/							
	Western white pine	Ponderosa pine	Western larch	Douglas fir	White fir	Western red cedar	Engelmann spruce	Total
Zone 1								
Ponderosa pine-pure		86,825	4,147	5,007	426			96,405
Ponderosa pine-mixed	66	64,899	9,067	25,501	3,752	643	76	104,004
Larch-Douglas fir		601	1,757	1,504	551		191	4,604
Douglas fir		484		2,184	55		19	2,742
Total	66	152,809	14,971	34,196	4,784	643	286	207,755
Zone 2								
Ponderosa pine-mixed		6,473		4,814				11,287
Douglas fir		20		80				100
Total		6,493		4,894				11,387
Zone 3								
Ponderosa pine-mixed		50	25	50				125
Total		50	25	50				125
Grand Total	66	159,352	14,996	39,140	4,784	643	286	219,267

1/ Black cottonwood and cedar poles occur in negligible quantities.

Data as of January 1, 1938

Table 6. - CLASSIFICATION OF NONSAWLOG IMMATURE TIMBER TYPES ACCORDING TO DENSITY OF STOCKING

LEWIS COUNTY, IDAHO

Timber type 1/	Pole							
	Well stocked		Medium stocked		Poorly stocked		Total	
	Acres	%	Acres	%	Acres	%	Acres	%
Ponderosa pine-pure	7,627	68	2,687	24	886	8	11,200	100
Ponderosa pine-mixed	2,962	75	962	24	24	1	3,948	100
Larch-Douglas fir	1,321	100					1,321	100
Douglas fir	4,017	89	214	5	270	6	4,501	100
Lodgepole pine	332	100					332	100
Total	16,259	76	3,863	18	1,180	6	21,302	100

Timber type 1/	Seedling and sapling							
	Well stocked		Medium stocked		Poorly stocked		Total	
	Acres	%	Acres	%	Acres	%	Acres	%
Ponderosa pine-pure	1,797	18	5,427	56	2,490	26	9,714	100
Ponderosa pine-mixed	4,538	63	2,357	32	338	5	7,233	100
Larch-Douglas fir	191	45	229	55			420	100
Douglas fir	2,534	88	350	12			2,884	100
Lodgepole pine	77	62	48	38			125	100
Total	9,137	45	8,411	41	2,828	14	20,376	100

Timber type 1/	Total pole, seedling and sapling							
	Well stocked		Medium stocked		Poorly stocked		Total	
	Acres	%	Acres	%	Acres	%	Acres	%
Ponderosa pine-pure	9,424	45	8,114	39	3,376	16	20,914	100
Ponderosa pine-mixed	7,500	67	3,319	30	362	3	11,181	100
Larch-Douglas fir	1,512	87	229	13			1,741	100
Douglas fir	6,551	89	564	7	270	4	7,385	100
Lodgepole pine	409	89	48	11			457	100
Total	25,396	61	12,274	29	4,008	10	41,678	100

1/ The cottonwood type is not classified as to stocking.

Data as of January 1, 1938.

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Table 7. - CLASSIFICATION OF STOCKED TIMBERLANDS ACCORDING TO TYPE AND SITE QUALITY
LEWIS COUNTY, IDAHO

Area in Acres

Timber type [1/]	Site number					Average site
	II	III	IV	V	Total	
Ponderosa pine-pure	359	22,373	10,234		32,966	III & IV
Ponderosa pine-mixed	13	15,704	13,267		28,984	III & IV
Larch-Douglas fir		2,299	120		2,419	III
Douglas fir		175	1,525	6,287	7,987	V
Lodgepole pine		125	332		457	III & IV
Total	372	40,676	25,478	6,287	72,813	

1/ The cottonwood type is not classified as to site.

Data as of January 1, 1938

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Table 8. - CLASSIFICATION OF STOCKED TIMBERLANDS ACCORDING TO TYPE AND AGE CLASS, ZONES ONE AND TWO
LEWIS COUNTY, IDAHO

Area in Acres

Timber type 1/	Age class - years						Total
	0-40	41-80	81-120	121-160	161-200	200+	
Ponderosa pine-pure	15,247	5,121	1,409	1,120	9,266	797	32,960
Ponderosa pine-mixed	8,821	1,626	1,933	1,240	13,714	1,312	28,646
Larch-Douglas fir	373	1,368			634	44	2,419
Douglas fir	3,617	2,850	917	378	117		7,879
Lodgepole pine	125	332					457
Total	28,183	11,297	4,259	2,738	23,731	2,153	72,361

1/ The cottonwood type is not classified as to age. Data as of January 1, 1938

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Table 9. - AVERAGE ANNUAL CUTTING DEPLETION FROM THE GREEN TIMBER RESOURCES BY TREE SIZE, SPECIES AND PRODUCTS

LEWIS COUNTY, IDAHO

Product	White pine	Ponderosa pine	Larch	Douglas fir	White fir	Total
From trees of sawtimber size (thousand board feet, Scribner Decimal C, log scale)						
Sawlogs[1/]	13	14,350	1,085	887	2	16,337
Fuelwood[2/]		3,637		4,188		7,825
Total	13	17,987	1,085	5,075	2	24,162
From trees of less than sawtimber size (cubic feet)						
Fuelwood[2/]				180,084		180,084
Fence posts[2/]				9,828		9,828
Total				189,912		189,912

1/ 1925-1936 inclusive.
2/ From a special survey in 1935.

Glossary

NONFOREST LAND TYPES

Townsites - includes both incorporated and unincorporated urban settlements.

Cultivated - areas cleared and/or cultivated for agricultural use, including pasture.

Stump pasture - logged off or burned off lands, part of operating farm units, now chiefly devoted to grazing and from which stumps or snags have not been removed.

Barrens - areas too rocky, too scanty as to soil, or too exposed, to support a vegetative cover of either trees, shrubs, or herbs.

Grass - areas such as parks, mountain meadows, or treeless ridges, whose principal vegetation is grass and herbs.

Brush - areas whose principal vegetation is sagebrush, brush, or shrubs as a permanent type.

FOREST LAND TYPES

Timberland - forest areas capable of producing trees of commercial species and quality.

Producing timberland - timberland areas containing forest growth, or if not, which have been denuded since 1925.

Deforested timberland - nonrestocked old burns or cut-overs denuded prior to 1925.

Subalpine - stands above the altitude range of merchantability.

Rocky noncommercial - areas too steep, sterile, or rocky to produce merchantable timber.

Sawlog stands - timber stands containing 3 thousand board feet per acre for the ponderosa pine and lodgepole pine types or 4 thousand board feet for the other types, except cottonwood, in trees of sawlog size. The cottonwood type has no minimum limit. The minimum size classes for sawlog trees are: white pine, ponderosa pine, lodgepole pine - 12 inches, cedar - 24 inches, and other species - 14 inches (diameter breast high).

Merchantable pole stands - cedar or cedar-white fir stands containing 8 or more commercial cedar poles to the acre (12 to 24 inches diameter breast high).

Other pole stands - timber stands in which the majority of the dominant trees are between 6 inches and merchantable size.

Seedling or sapling stands - timber stands in which the majority of the dominant trees are less than 6 inches.

Recent burns and cut-overs - areas cut or burned since 1925 for which sufficient time has not elapsed to allow classification into one of the other timber types.

Reserved areas - includes publicly owned forest lands not available for conversion into timber products but reserved for parks, primitive areas, protection of municipal watersheds, etc.

Zones - Zone One includes areas loggable under present conditions.

Zone Two includes areas loggable with increased stumpage values.

Zone Three includes areas of no probable value for timber production.

Site class - the index of the productivity of an area for growing forests. There are 5 or 6 site classes with the best sites numbered one, the next best two, etc.

Stocking - in young timber stands stocking is the measure of the extent to which an area is covered with forest growth. The degrees of stocking are:

Less than 10 percent stocked	= unstocked
10 to 39 percent stocked	= poorly stocked
40 to 69 percent stocked	= medium stocked
70 to 100 percent stocked	= well stocked

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AUTHOR Northern Rocky Mt. Forest & Range Exp.

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Release No. 13

Forest Survey Release No. 13 A May 1938

Progress Report.

From the Inventory Phase of the Forest Survey

By Forest Survey Staff M. Bradner Regional Director

Form 172 GPO 8—558